

## PRALIDOXIME CHLORIDE (2-PAMCl, Protopam®)

<b>Classification:</b>	αCholinesterase reactivator	
<b>Actions:</b>	αBlocks the effects of accumulated acetylcholine by breaking the bond between the nerve agent and the enzyme acetyl cholinesterase.	
<b>Indications:</b>	αSymptoms of nerve agent poisoning <ul style="list-style-type: none"><li>• Respiratory distress/respiratory arrest</li><li>• Muscle twitching</li><li>• Generalized weakness/paralysis</li><li>• Seizure</li></ul>	
<b>Contraindications:</b>	Not significant in above indications	
<b>Adverse Effects:</b>	<i>Cardiovascular</i> tachycardia <u>hypertension</u> drowsiness	<i>Neurological</i> blurred vision headache
	<i>Respiratory</i> hyperventilation	<i>Gastrointestinal</i> nausea/vomiting
<b>Administration:</b>	<b>Given in conjunction with atropine.</b>	
<b>Adult:</b>	<b>DuoDote</b> Auto-injector (600mg) IM. May repeat two times as necessary.	
<b>Pediatric:</b>	<u>Less than 20kg or under 2 years old</u> 20mg/kg IM one time  <u>Greater than 20kg and over 2 years old</u> Adult dose one time (may use DuoDote with caution)	
<b>Onset:</b>	10-20 minutes	
<b>Duration:</b>	1 hour	
<b>Precautions:</b>	Hold auto-injector in place for 10 seconds to ensure complete administration of the medication. The amount of medication administered cannot be visualized in the auto-injector.  Use a vial of reconstituted powder for administration to pediatric patients. The dose of the medication cannot be controlled with the auto-injector; as it will deliver 600mg of Pralidoxime.  Select a large muscle for injection to minimize discomfort and tissue damage. Injection will cause mild/moderate pain at injection site and may cause tissue damage when the DuoDote auto-injector is used.  <u>Adult</u> -- use the upper-outer thigh or upper-outer aspect of the buttocks. <u>Children under 2 years of age</u> --DO NOT USE AUTO-INJECTOR. <u>Children over 2 years of age and at least 20kg</u> -- use only the outer-upper thigh --DO NOT USE BUTTOCKS AS INJECTION MAY CAUSE NERVE AND/OR TISSUE DAMAGE.	

Assess patients frequently for symptoms:

Adults who have severe symptoms and require 3 DuoDote injections should receive diazepam 10mg IM to control or prevent seizures.

Pediatric patients who are seizing should receive diazepam 0.5mg/kg IM -- maximum dose is 10mg.

### Notes:

Pralidoxime is supplied in auto-injector syringe as part of the DuoDote nerve gas antidote kit containing 600mg (300mg/ml)  
It is also supplied as a powder to be reconstituted with 20ml of sterile water to equal 30mg/ml.

The 4 major organophosphate type of nerve agents used for chemical warfare (terrorism) are: tabun (GA), sarin (GB), soman (GD) and VX.

The sooner Pralidoxime is administered the more effective it is in reversing effects of organophosphates. Must be given within 2 minutes after soman exposure, 4 - 6 hours after sarin exposure and 60 hours after VX exposure.

Clothing does not need to be removed if injection is needed immediately, however, check that objects in pockets do not interfere with injection.

Treatment with DuoDote antidotes should begin only after symptoms develop.

Exposures are classified as liquid or vapor and symptoms may develop even after decontamination.

Onset of symptoms can vary depending on type and amount of exposure; vapor | seconds - minutes and liquid contact | minutes - 18 hours.

Signs/Symptoms of nerve gas toxicity and Treatment:

Mild/moderate: *Treatment* — 1-2 DuoDotes

- muscle twitching at site of exposure
- sweating at site of exposure
- nausea/vomiting
- feeling of weakness

Severe: *Treatment* — 3 DuoDotes and diazepam 10mg

- severe breathing difficulty/respiratory arrest
- generalized muscular twitching
- generalized weakness and/or paralysis
- convulsions
- loss of consciousness
- loss of bladder and bowel control



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